DOCUMENT RESUME

ED 142 029 EC 101 410

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TITLE The Concept of Adaptive Behavior.
PUB DATE Dec 76
NOTE 14p.; Paper presented at the Annual Meeting of the Texas Psychological Association (Houston, Texas, December, 1976); This paper was one of six presented at a symposium on Using Measures of Adaptive Behavior in Appraisal Practices

EDRS PRICE MF-$0.83 HC-$1.67 Plus Postage.
DESCRIPTORS *Adjustment (to Environment); *Evaluation Methods; *Handicapped Children; Models; Personal Adjustment; *Student Evaluation

ABSTRACT

Two papers from a Houston seminar on the concept of adaptive behavior provide a review of adaptive behavior measures and a discussion of Jane Mercer's assessment model. Tables present information on administration and content of eight measures: the American Association on Mental Deficiency (AAMD) Clinical, and AAMD School, Caine-Levine, California Preschool, Camelot, Mercer ABIC, Preschool Attainment Record, and The Vineland Social Maturity Scale. The use of many assessment instruments and the pluralistic perspective are said to be among the distinguishing features of Jane Mercer's System of Multicultural Pluralistic Assessment. (CL)

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ED142029

The Concept of Adaptive Behavior[1]

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It is a new experience for me to be involved in a symposium directed toward examining the concept and practical use of adaptive behavior. My graduate training did not emphasize adaptive behavior; I do not recall reading much literature on adaptive behavior, or being trained in the use of adaptive behavior measures.

Yet, to be unaware of adaptive behavior in 1976, particularly in Texas, is to admit that one is either a foreigner or the proverbial ostrich.

Presumably all of us have an interest in the concept of adaptive behavior; many of us are required to use assessment techniques which presumably measure it, and some persons are doing research in order to better understand its properties and how it can be used.

This symposium is designed to bring together people who have common interests and somewhat uncommon experiences to present a brief "state of the art" discussion regarding adaptive behavior.

The philosophical foundation for adaptive behavior can be traced to early Grecian and Roman civilizations which judged persons' mental abilities on the basis of their taking an active and productive role in the life of their community. The Greek word for idiot, for example, signified a person who was unable to take part in the public affairs of his community. Thus, in a broad sense, a person's mental ability was evaluated in terms of specific behaviors deemed important within his social and cultural system.

Viewed historically, the construct of adaptive behavior in psychology has been strongly entertwined with the concept of intelligence and more specifically the construct of mental retardation. Itard, Seguin, Binet, and Simon emphasized the importance of recognizing that intelligence is reflected by many different kinds of behaviors displayed in various settings. In essence, they suggested a multi-dimensional and multi-level definition of intelligence. This was in opposition to Galton, Cattell, and Goddard who conceptualized intelligence as a more unitary trait which could be assessed primarily through formal psychometric tests.

The growth of academic psychology up through the middle of this century can be attributed largely to developments in the fields of psychometrics and research methodology. The development and utilization of the Stanford-Binet, the Army Alpha and Beta, the Wechsler series and hundreds of other instruments

[1]Presented at the Annual Meeting of the Texas Psychological Association, Houston, Texas, December, 1976. This paper was one of six presented at a symposium on Using Measures of Adaptive Behavior in Appraisal Practices (T. Oakland, Chairman).

EC 101 410

largely were not guided strongly by theoretical and philosophical concepts of intelligence; their development and use were justified empirically and quantitatively. By defining intelligence empirically, we have produced a number of well-developed tests of intelligence but we may have lost sight of certain historically important notions regarding intelligence, one notion being that intelligent behaviors can be reflected in non-academic settings. We have retained Binet's psychometric contributions but have largely discarded his definition of intelligence expressed in his book on the DEVELOPMENT OF CHILDREN'S INTELLIGENCE (1916): "an individual is normal if he is able to conduct his affairs of life without having need of the supervision of others, if he is able to do work sufficiently renumerative to supply his own personal needs, and finally if his intelligence does not unfit him for the social environment of his parents."

While we continue to define intelligence in a more narrow empirical fashion, its broader notions, including those of adaptive behavior, have not been forgotten totally. Self-help skills, self-direction behaviors, vocational and economic pursuits, and being responsible for other persons retain their importance. However, we have separated them from the concept of intelligence and made them into a distinct concept, largely through the work and encouragement of Dr. Edgar Doll. Thus, we have two concepts, intelligence and social maturity, which are largely distinct within academic psychology.

However, professionals from education, clinical and school psychology, anthropology, sociology, and the legal profession--together with various concerned adults--have urged that the two should not be distinct; that we either should return to the older notion of intelligence which provides for adaptive behaviors or we should use the two simultaneously in order to define intelligence.

We currently are being encouraged to follow the second option--to use the two simultaneously. The American Association on Mental Deficiency (Grossman, 1973) has defined mental retardation as

> "significantly sub-average general intellectual functioning existing concurrently with deficits in adaptive behavior, and manifested during the developmental period."

They define adaptive behavior as the "effectiveness or degree with which the individual meets the standards of personal independence and social responsibility expected of his age and cultural group. Since these expectations vary for different age groups, deficits in adaptive behavior will vary at different ages." Deficits during infancy and early childhood might be reflected in sensory-motor skill development, communication skills, self-help skills, and socialization; during childhood and early adolescence, deficits may be reflected in the application of basic academic skills, in daily life activities, in appropriate reasoning and judgment, and the mastery of environment and social skills; during late adolescence and adult life, deficits may be reflected in vocational and social responsibilities and performances. Delays in the acquisition of these skills represent potential deficiencies in adaptive behavior and become the criteria for mental retardation.

It is important to note that we simultaneously use measures of intelligence and adaptive behavior to define and measure the construct of mental retardation, and the broader construct of intelligence.

As Mr. Buckley will indicate, tests which reportedly measure adaptive behavior differ. I would like to contrast two tests which currently are used to assess adaptive behavior in an attempt to show how they differ in defining the construct.

The Vineland Social Maturity Scale is designed to assess a person's progressive capacity for looking after themselves and for participating in activities leading toward independence as an adult. For children, self-help skills are important; for adolescents, self-direction behaviors are important; for adults, assuming responsibility for others is important. Evaluating a person's behavior relative to a specific cultural and social setting is not important in the Vineland.

Mercer defined adaptive behavior in terms of a child's manifesting appropriate interpersonal relationships and acquiring skills deemed important by various social systems within which a child resides. These relationships and social systems include one's peers, family, neighborhood, school, and community (including the roles of earner, producer, and consumer). Whereas the Vineland places great importance on a child becoming more independent, the importance of self-independence on Mercer's ABIC can be determined only after knowing the value of independence within a child's social system. Thus, the concept of Adaptive Behavior within the ABIC is broader than that in the Vineland and is evaluated relative to specific social systems, not to one established norm.

What can be said about the construct of adaptive behavior? First, there is no single concept of adaptive behavior--just as there is no single concept of intelligence. Second, to be useful in an applied setting, further work is needed to examine the relevance of adaptive behavior for non-mentally retarded persons. Its close ties with the concept of mental retardation may be an inappropriate limitation. Third, there is a need to examine the construct of adaptive behavior through accepted empirical techniques. For example, we need to determine its relationships with more established measures of psychological, social, and educational characteristics.

In the meantime, there is a need to be cautious in inferring that adaptive behavior measures yield a more equitable and fair assessment of minority group children and that the measures lead to educationally relevant interventions.

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Review of Adaptive Behavior Measures

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This paper discusses several ideas relevant to the selection of an adaptive behavior instrument for use in a public school appraisal system and reviews some available measure of adaptive behavior. Two assumptions are made. First, our aim is the proper placement of school age children only and second, our definition of adaptive behavior is that of the American Association on Mental Deficiency.

At first glance, it would appear that we are in a "buyer's market" situation in attempting to select a measure of adaptive behavior. There are dozens of measures. Closer inspection, however, reveals that quite the opposite is true. Adequate and relatively complete measures of adaptive behavior are only now being developed.

To illustrate this point, I will review briefly seven measures of adaptive behavior generally in use. You, as potential consumers, can judge whether these representative measures meet your needs.

Let us begin by asking some questions that should arise whenever we consider using a formal test (see the attached reference chart). What is the age range of the instrument? Most of the measures range from age five through adolescence. Two in particular, the Preschool Attainment Record (PAR) and the California Preschool Social Competency Scale are designed for children under five years of age.

Time of administration. The time factor is generally under one hour for all measures, with the Vineland being the fastest to administer.

Training. Another important consideration involves the level of training necessary to successfully administer the measures. Most require a low level of expertise in test administration. The Camelot scale and the Adaptive Behavior Inventory for Children (ABIC) require training in interviewing techniques but paraprofessionals are able to administer these measures.

Respondent. Who is the respondent to the instrument? The ABIC scale requires a parent interview; for the others teachers, ward attendants, and direct observation of the child suffice.

Psychometric Properties. Psychometric properties of the scales are important. With the exception of the P.A.R., all measures have reliability and validity data reported. Note also, the populations on which the instruments are normed: clinical/institutional, school, or completely random selections of children.

Rationale. A clear and explicit rationale for the use of adaptive behavior measures is another important factor which should guide our choice of a particular measure. In my opinion, this is the single most important factor in determining our choice. Generally, testing serves one (or more) of three

purposes: general screening, placement, and programming/remediation activities. For our purposes, adaptive behavior measures are to be used in deciding special class placement, particularly for the EMR classification. We might hope for the useful but secondary benefit of remediation suggestions.

Some Measures of Adaptive Behavior

The Caine-Levine Social Competency Scale is designed for use with TMR children and, although a sound scale, it is not recommended for use beyond an IQ of 59 (Buros, 1965).

The Camelot Behavioral Checklist provides information for use in both placement and programming decisions. In addition, the scale includes sections on job skills and work related skills, areas usually omitted from other scales. But the Camelot is also designed mainly for the TMR population. This leaves us with the two versions of the AAMD scale, the Vineland and its preschool extension, the P.A.R. and Mercer's ABIC.

In 1959 when the AAMD decided to incorporate the assessment of adaptive behavior into the definition and determination of mental retardation, there was no instrument that met the AAMD's definition of adaptive behavior. As a compromise, the AAMD recommended the use of the Vineland Scale (Doll, 1953) as a means of measuring adaptive behavior. Even at that time it was recognized that the Vineland is not really appropriate for this use because it is primarily developmental and its subscales do not adequately measure a full range of adaptive behaviors across age levels. Further, it does not assess the three factors of personal independence, social maladaption and intra-personal maladaption that constitute adaptive behaviors as defined by the AAMD study.

As a consequence, the AAMD sponsored the development of the Adaptive Behavior Scales by Nihira. This instrument, now called the Clinical Version of the Adaptive Behavior Scales is designed for use with severely handicapped children and is normed on an institutional population. Clearly, this instrument does not serve our <u>specific</u> purpose.

In the early 1970s, the ABS Public School Version was developed to assess adaptive behavior in school settings in less severely handicapped children. The instrument is normed on school children using teachers as the respondents. The scale has two parts. The first section measures one's ability to adapt to the natural demands of the environment and the second section assesses the ability to cope with social demands. Subscales such as violent and destructive behavior, withdrawal and inappropriate interpersonal manners are included. Most of the questions are asked from a clinical perspective, reflecting the scale's development. Further, the scale was constructed principally to provide information for remediation and rehabilitation rather than placement per se.

The Adaptive Behavior Inventory for Children Scale by Mercer and Lewis approaches the assessment of adaptive behavior from a social systems model. It is designed to measure the social roles of children in different environments, age 5 through 11 years. The six subscales are 1) Family role performance; 2) community role performance; 3) peer group performance; 4) student role performance; 5) owner/consumer role performance; 6) self maintenance role performance. Information is

usually gathered from the child's mother. While standardizing the ABIC, Mercer found no ethnic differences between the mean raw scores on the six subscales for Anglo, Black and Mexican-American children. The scale is very comprehensive and provides extensive evaluation of the child's social role performance, assuming the information gathered is accurate. The scale does have drawbacks, however. Administration and scoring is time-consuming and requires thorough training. Secondly, the scale has not been fully streamlined and evaluated. It is still in an experimental stage. Third, programming and remediation ideas remain to be developed from the scale.

All in all, it is quite clear that while adaptive behavior measures exist in relatively large supply, care is needed in the selection of the appropriate measure best suited to the needs of the user. The user of these measures in turn has the responsibility to clearly articulate purpose and desired outcomes.

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SEE TABLES ON FOLLOWING TWO PAGES

BEHAVIOR DOMAINS - SELECT MEASURES OF ADAPTIVE BEHAVIOR

	Phys. Dev./Sens. Motor/Locomotion	Cognitive/ Achievement	Self-direction	Language/ Communication	Vocation/ Occupation	Economic Act.	Social Dev.	Self-Help/ Independ. Func./ Maintenance		Peer Role	School Role	Family Role	Community Role	Earner/Consumer Role	Self-maintenance Role
AAMD Clinical	X		X	X	XX	X	X	X							
AAMD School	X		X	X	X	X	X	X							
Caine Levine			X	X			X	X							
California Preschool				X			X								
Camelot	X		X	X	X	X	X	X							
Mercer ABIC										X	X	X	X	X	X
P.A.R.	X		X	X			X	X							
Vineland	X		X	X	X	X	X	X							

Kevin J. Buckley
Adaptive Behavior Symposium
Texas Psychological Association, 1976

Measure	Time	Age	Examiner			Respondent			Purpose			Population			Scale Property			Rel/Val Data	Scoring			
			Teacher	Other Professional	Other	Teacher	Parent/Family	Child	Screen	Place	Program	Clinical	School	All Children	Norm ref.	Crit. ref.	Ceiling L/H	Yes/No	z-score	GE/Age	%ile	Scale score
AAMD Clinical	30'-1 hr.	3-13 13-A		X	X		X			X	X	X			X	X	L	yes			X X	
AAMD School	30'-1 hr.	7-13	X	X	X	X	X			X	X		X		X	X	L	yes			X	
Caine-Levine	30'	5-13	X	X	X		X			X					X	X	L	yes			X	
California Preschool	20'	2-5	X	X	X	X	X		X					X	X	X	L	yes			X	
Camelot	1 hr. *	2-A	X	X	X+	X	X			X	X			X		X	L	yes				
Mercer ABIC	1 hr.	5-11		X	X+		X			X			X		X		H	yes				X
P.A.R.	20'	B-7	X	X	X	X	X			X		?	?	?	X		L	no		X		X
Vineland	10-20'	B-25		X		X	X	(+)		X		X			X			yes ≠				

(+) older children
≠ still being researched
* can be given in sections
\+ extensive training of interviewer

A Description of Jane Mercer's Assessment Model: SOMPA -

System of Multicultural Pluralistic Assessment

Two major attributes characterize the SOMPA model of assessment: 1) This model includes many assessment instruments (one of which is the Adaptive Behavior Inventory for Children) so that much information is systematically obtained and no one measure need be depended upon; 2) Mercer's model attempts to accomplish pluralistic assessment, meaning that her assessment battery has been devised in order to compare a child with children having similar background and opportunities. To accomplish pluralism Mercer has included in the SOMPA a measure of sociocultural modality. Children are then compared with other children assessed to be socio-culturally similar. In effect, pluralistic assessment attempts to control for possible cultural bias in assessment instruments. More details on this procedure will be described later.

A sociological conceptualization of adaptive behavior was used in the development of the Adaptive Behavior Inventory for Children (ABIC). Adaptive behavior is conceptualized both as the development of skills in interpersonal relations and as an expanding, age graded dimension in which the individual gradually increases the number of social systems in which he or she participates and the number and complexity of the roles he plays in those systems. The social systems considered here are the family, neighborhood, school and community.

Six subtotal scores are acquired on the ABIC, representing behaviors relating to family, community, peers, school, earner/consumer and self maintenance. Each of these raw scores are interpolated in to scaled scores, which can then be totaled and averaged for an ABIC average score.

The complete SOMPA assessment battery includes nine measures, six of which are obtained with the child and three of which are obtained in a structured interview with one parent (usually the mother). The six child measures are: (1) the Wechsler Intelligence Scale for Children-Revised (WISC-R), (2) a physical dexterity battery, (3) the Bender-Gestalt Test for Young Children, a perceptual-motor test, (4) height and weight, and (5) a vision test, and (6) a hearing test.

The three parent measures are the Sociocultural Modalities Scale, the Adaptive Behavior Inventory for Children (ABIC), and the Health/History Inventory--prenatal to present.

Falling under a medical model interpretation in the SOMPA would be the physical dexterity battery, the Bender-Gestalt, the Health/History Inventory and the height, weight, vision and hearing measures. All of these measures would indicate the presence or absence of biological symptoms. They identify those children with possible physical disabilities.

The WISC-R and the ABIC would follow a social systems model of assessment. These measures indicate how a child's behavior compares to norms or expectations of a defined social system.

The WISC-R or the ABIC, when interpreted by means of pluralistic norms, would represent the use of a pluralistic model of assessment. A child's appropriate group of comparison can be determined by the socioculture modality score (appropriate norms should be available for each group). Further, to accomplish pluralistic assessment of the WISC-R Mercer has devised a regression equation which includes assessed sociocultural factors and the WISC-R score. Sociocultural factors include socioeconomic level, family size and structure, and urban acculturation--all factors which have shown to be correlated with WISC-R scores. The resulting score is a modified WISC-R score that represents what Mercer calls latent scholastic potential. In essence, the IQ score of a child from a "disadvantaged" background is adjusted upward. It is proposed that these adjusted scores will more accurately represent a child's academic potential. Longitudinal studies will provide the information necessary to test this assumption.

Austin Research Project

Our use of the adaptive behavior scale in Austin is part of a larger project to establish triethnic local norms on the Wechsler Intelligence Scale for Children-Revised (WISC-R) and the Adaptive Behavior Inventory for Children (ABIC). While we are not using Mercer's total SOMPA model, we are using in addition to the ABIC her Sociocultural Modalities Scale, the Health Inventory Scale, the WISC-R and the Bender-Gestalt Test for Young Children.

We are using a stratified random sample of approximately 420 children from ages 7 to 13. Of the 60 children at each age 20 are White, 20 are Black, and 20 are Mexican-American. Because of our suspicions of the heavy influence of socioeconomic status, 1/2 of the children are from lower socioeconomic status homes and 1/2 are from middle socioeconomic status homes. We also plan to have approximately equal numbers of males and females. At the project's completion, in addition to an overall Austin norm, we will have separate norms for Blacks, Whites, Mexican-Americans, lower socioeconomic children, middle socioeconomic children, males and females. As a result, in assessing our children we will be able to compare each child to children of similar backgrounds, and to Austin children as a whole.

For research purposes we saw this project as an excellent opportunity to gather extensive information on a rarely available sample of children. The more we can discover and understand about how children differentially develop, the greater are our chances of effectively assessing and serving them. With this interest in mind we have incorporated additional assessment instruments into our project. We are obtaining additional information on parent and child attitudes and personalities, along with characteristics of the schools and the testing situations. We intend to explore the many possible interrelationships between these factors (in addition to age, ethnicity, sex, and socioeconomic status) and IQ, school achievement, and adaptive behavior. Through correlations with group achievement data available to us we will also investigate the validity of all these various scales with the total and subpopulations.

A structured questionnaire was developed for the parents. In this questionnaire demographic information is first requested (i.e., age, sex and occupation of adults in the home; number and order of children in the family and their age, sex, educational or vocational status, and physical or educational problems; and educational history of the subject). Then questions are asked to acquire information about the parents' characteristics and attitudes in the following areas: child rearing practices, value of education for children, internal-external locus of control, closeness of the child to parents, academic and vocational expectations and aspirations they have for the child.

A structured interview also was developed for the child and is administered before testing proceeds. The questions were designed to obtain information on the following characteristics and attitudes of the child: social or academic interests toward school; self-evaluation of how he/she is doing in school (and how he/she did on the WISC-R after taking it); academic and vocational aspirations and expectations; internal and external locus of control; and extent of child-adult interactions. The child's examiner also fills out two forms: 1) a Test Behavior Observation Guide which reflects the examiner's subjective evaluation of the attitudes and behaviors displayed by the child during the test and, 2) a factual information form about the testing situation, i.e., day of the week, time of the day, weather, and the examiner's sex and ethnicity.

In addition to the WISC-R three other instruments are administered to students. Children of ages 7, 9, and 11 are given Kagan's Matching Familiar Figures Test, an instrument which measures a student's tendency to respond reflectively or impulsively in a specific problem solving situation. Children of ages 8, 9, and 10 are administered both the Bender-Gestalt Test for Young Children, a test of perceptual-motor ability, and the Draw-a-Person projective test.

Hopefully, with this abundance of information we will be able to learn more about how and why our children function as they do and, more importantly, begin to explore ways in which we may facilitate learning for them.